Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Proportion of Old Offenders.		*Religious Advantages.*	
Known to the police	149	Visited by clergymen	53
Unknown to the police	497	Not visited by clergymen	593
	646		646

Religious Denominations.		*Country.*	
Established Church	299	Natives of England	446
Roman Catholics	85	Wales	14
Dissenters	45	Scotland	14
Undefined	217	Ireland	172
	646		646

Domestic Condition.

Unmarried	372	Married, without children	31
Married	274	Married, with children	243
	646		274

Number of prisoners' children . . . 674

Vital Statistics of the Spinners and Piecers employed in the Fine Spinning Mills of Manchester. By John Shuttleworth, Esq.

[*Read before the Statistical Section of the British Association at Manchester, 25th June,* 1842.]

The Tables which I have to present to the Section, relate to the 19 cotton mills in Manchester which are engaged in spinning fine numbers of yarn. These are the whole of the establishments in this town so employed. As such mills require to be kept at a higher temperature than is necessary in spinning common numbers, it has been generally considered that the health of the workpeople engaged in them was exposed to more injury than attended any other kind of factory labour. In consequence of this prevailing opinion, and as the conditions under which the fine spinners are placed are certainly somewhat peculiar, it was thought desirable, when the Factory Commission was appointed, in 1833, to collect a body of information which should be confined exclusively to them, as a separate and distinct class of spinners. The parties concerned in the inquiry, anxious to have the facts collected under such circumstances as to entitle the statement of them to every confidence, requested me, as a person wholly unconnected with the spinning business, and having no interested feeling in the result of the investigation, to undertake the responsibility of conducting it. I accordingly drew up a series of questions, to be answered personally and individually by each operative spinner, to agents, consisting of professional accountants and one of our most respectable and intelligent surgeons, who were employed to go through the mills and receive the answers from the workmen. That the answers might be given considerately and after due preparation, every spinner was furnished with a list of the questions a day or two before the agents visited them to receive their replies. The facts and statements, thus most carefully and scrupulously collected, were then arranged by me under the heads exhibited in the tables, and, afterwards, delivered in evidence to the Factory Commissioners sitting in

Manchester at the time, and their accuracy verified on oath by myself and the agents employed. It happened, however, that the documents were not forwarded to London till the Commissioners sitting there had decided on closing the inquiry, and these tables, therefore, were not included in the Report of the Commission. As the information they contain is entitled to the fullest reliance, and has not hitherto been published, I have been requested to offer it to this Section as a contribution which may possess some interest and importance in Vital Statistics.

The 19 mills in question worked 69 hours per week, and employed 837 spinners who were adults. The three tables subjoined contain the results of our investigation concerning the ages and health of these men, of their families, and of the piecers working for them.

The general results are as follows:—

There are 837 spinners, whose united ages are 27,367, making an average of 32 years for each spinner. They have worked in cotton mills 19,133 years, which is equal to 22 years and 10 months for each. Of the total number, 255 or nearly 30½ per cent. were absent from work on account of sickness in the year 1832, an aggregate of 6,296½ days, or an average of 24½ days for each of the 255 who were sick, or 7⅓ days for the whole number of spinners employed. Of the 837 spinners, 621 or 74½ per cent. reported themselves to have "*good health*," 171 or 20½ per cent. to have "*pretty good health*;" and 45 or about 5 per cent. to have "*indifferent health*."

The 837 spinners employed 3,233 boys and girls as piecers, or something less than an average of 4 piecers to each spinner. Of these piecers 488, or 12 per cent. were relations of the spinners.

Of the spinners, 707, or rather more than 84 per cent. were married. The united ages of the wives, when married, was 15,376½ years, equal to 21 years for each. The number of years of the marriages was 7,907 years and 5 months, equal to 11 years and 2 months for each marriage. In this period 26 of the wives, or rather more than 3½ per cent., were dead, and 681, or nearly 96½ per cent., were living. Of the living, 422, or 62 per cent., were reported to enjoy "good health;" 151 or 22¼ per cent. to have "pretty good;" and 108, or 15¾ per cent., to have "indifferent health." The married spinners had had 3,166 children, equal to 4½ to each marriage. Of these children, 1,922, or 60½ per cent. of the whole, were alive, and 1,244, or 39½ per cent., were dead. Of the children alive, 1,225, and of those who were dead, 1,221, making 2,446, or 77¼ per cent., had never been occupied in any kind of work. Of the whole, 640, or about 22 per cent., had worked in cotton mills, and 58, or near 2 per cent., had worked at other employments. Out of the 640 who had worked in mills 18, or about 2¾ per cent., were dead, and out of the 58 who had worked at other employments 4, or nearly 7 per cent., were dead. The cases of distortion among the 640 factory children were 8, or 1¼ per cent., and there were 7 cases or something more than 1 per cent. of mutilations from machinery.

No. I.—*Number and Ages of Fine Spinners, the Time during which engaged in the Trade, and their Sickness during the year* 1832, *working* 69 *hours per week.*

Firms.	Under 21				21 to 25				26 to 30				31 to 35				36 to 40			
	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.
T. and R. Barnes	..	..	..	..	7	15	14	14	15	19	21	7	5	25	157	78	10	28	9	9
Bazley and Son	2	9	..	..	13	14	326	108	21	20	160	32	5	23	..	..	6	24	54	18
Bellhouse	..	..	..	..	3	13	..	..	7	19	4	4	6	21	..	..	7	27	96	24
Buckham and Co.	..	..	..	..	1	11	..	..	2	19	..	..	2	22	90	90	2	30	..	..
Carruthers	..	..	..	..	4	14	7	7	4	19	..	..	2	21	½	½	4	24	21	21
Falkner and Owen	1	12	..	..	3	15	..	..	5	19	107	27	8	24	14	14	5	28	7	7
B. Gray	..	..	..	..	9	15	58	29	10	20	22	7	8	23	164	82	6	29	4	4
Houldsworth	..	..	..	..	23	15	174	25	20	18	64	7	20	24	81	10	19	28	48	8
Kennedy and Co.	..	..	..	..	1	15	..	..	6	20	6	6	3	21	1	1	1	26	..	..
M'Connel and Co.	1	14	1	1	36	13	309	15	23	19	236	19	30	24	201	20	21	28	169	16
S. M. Moore	..	..	..	..	6	13	243	121	3	18	14	14	5	24	..	..	5	27	..	..
A. and G. Murray	1	9	..	..	25	14	256	32	42	18	82	9	14	22	14	14	21	28	17	8
Nicholls	..	..	..	..	1	13	..	..	4	19	126	42	5	26	..	..	2	29	..	..
T. and R. Ogden	3	12	194	97	25	13	293	20	9	19	94	18	17	24	25	8	18	29	114	22
Plant and Son	..	..	..	..	11	13	42	6	11	19	88	12	5	23	15	7	6	26	..	..
B. Sandford	..	..	..	..	11	13	101	50	7	18	7	7	8	24	33	11	5	29	14	14
W. Shaw	..	..	..	..	1	16	..	..	2	21	..	..	4	22	37	18	8	26	30	30
Taylor and Shatwell	..	..	..	..	..	..	..	..	2	19	..	..	5	25	28	14	2	30	7	7
J. and L. Williams	..	..	..	..	4	14	..	..	5	18	..	..	1	25	..	..	6	28	2	2
Total	8	..	195	..	184	..	1,833	..	198	..	1,031	..	153	..	860½	..	154	..	592	..

No. I.—*Number and Ages of Fine Spinners, &c.*—continued.

Firms.	41 to 45				46 to 50				51 to 55				55 to 60				Above 60			
	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.	Number.	Average Years worked in Mills.	Number of Days sick in 1832.	Average Days of Sickness of those who were sick.
T. and R. Barnes	6	31	10	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bazley and Son	4	23	120	120	1	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bellhouse	5	33	35	35	..	..	..	..	1	46	..	..	..	..	..	..	..	..	..	..
Buckham and Co.	1	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Carruthers	..	..	..	..	1	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Falkner and Owen	2	32	14	14	2	33	120	120	..	..	..	..	..	..	..	..	..	..	..	..
B. Gray	8	31	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Houldsworth	13	31	75	12	6	36	3	3	4	40	147	73	..	..	..	..	..	..	..	..
Kennedy and Co.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
M'Connel and Co.	10	32	341	57	4	37	267	133	3	39	..	..	1	43	270	270	..	..	..	..
S. M. Moore	3	28	60	60	2	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A. and G. Murray	11	30	14	14	4	35	28	28	1	40	60	60	2	42	..	..	..	..	..	..
Nicholls	2	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
T. and R. Ogden	15	32	67	13	4	40	35	35	1	42	28	28	2	37	..	..	1	47	14	14
Plant and Son	3	32	15	7	3	37	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Sandford	4	33	31	15	4	26	35	35	1	40	..	..	..	..	..	..	..	..	..	..
W. Shaw	2	30	..	..	1	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taylor and Shatwell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
J. and L. Williams	..	..	..	..	1	30	..	..	1	46	..	..	..	..	..	..	..	..	..	..
Total	89	..	787	..	33	..	488	..	12	..	235	..	5	..	270	..	1	..	14	..

No II.—*Spinners' Families, and their Health.*

Firms.	Spinners				and Wives							and Children.										In Family.	
	Unmarried.	Total Ages.	Married.	Total Ages.	Total Ages of Wives when Married.	Total Dead.	Total Alive.	Years Married.	Health. Good.	Health. Pretty Good.	Health. Indifferent.	Number Born.	Total Alive.	Total Dead.	Never Worked. Alive.	Never Worked. Dead.	Worked in Mills. Alive.	Worked in Mills. Dead.	Worked in other Employment. Alive.	Worked in other Employment. Dead.	Cases of Distortion.	Cases of Mutilation by Machinery.
								Yrs. Mo.														
T. and R. Barnes	2	67	41	1317	826	4	37	425·2	26	1	10	200	122	78	77	78	44	..	..	1	..	..
Bazley and Son	10	266	42	1271	892	3	39	321·11	27	11	1	145	92	53	72	52	20	1	..	..	..	..
Bellhouse and Sons	4	111	25	894	494	..	25	305	13	7	5	105	55	50	32	50	20	..	3	..	..	..
Buckham and Co.	2	54	6	207	122	..	6	71	5	1	..	33	15	18	10	18	5	..	..	..	..	..
Carruthers	2	51	13	432	285	..	13	106	3	4	6	53	33	20	25	20	8	..	..	..	1[a]	1
Falkner and Owen	3	65	23	794	498	..	23	268·6	13	8	2	95	70	25	44	24	26	1	..	..	1	1
Benjamin Gray	6	162	35	1190	832	..	35	338·6	22	8	5	132	87	45	54	44	29	1	4	..	2[b]	..
T. Houldsworth	10	278	95	3259	2182	7	90	1152·7	63	12	17	430	256	174	156	173	97	1	3	..	..	..
Kennedy and Co.	2	58	9	272	190	..	9	76·8	6	1	2	37	25	12	17	12	8	..	..	..	..	..
M'Connel and Co.	14	359	115	3774	2507	5	110	1220·11	73	16	21	476	303	173	212	170	90	3	1	..	..	1[c]
S. M. Moore	5	127	19	686	403	..	19	246·6	11	8	..	98	68	30	39	29	24	1	5	..	..	1[d]
A. and G. Murray	19	543	102	3345	2225	..	102	1031·8	82	14	6	420	233	187	151	185	75	2	7	..	1	..
Nicholls	1	26	13	444	291	..	13	147·6	5	2	6	75	45	30	26	30	18	..	1	..	..	..
T. and R. Ogden	25	644	70	2570	1480½	1	69	978·6	25	31	13	378	222	156	127	153	73	3	22	..	3[e]	1[f]
Plant and Son	5	115	34	1122	777	1	33	312·6	14	11	8	131	87	44	58	41	24	1	5	2	..	1[g]
B. Sandford	13	316	27	1001	588	3	24	353	18	5	1	144	89	55	49	53	35	1	5	1	..	1[h]
W. Shaw	1	30	17	622	345	1	16	252	10	4	2	89	60	29	35	26	25	3	..	..	..	..
Taylor and Shatwell	2	57	7	244	139	..	7	85	4	3	..	50	24	26	17	26	7	..	..	..	..	..
J. and L. Williams	4	94	14	490	300	3	11	187·6	3	5	3	75	36	39	24	37	12	..	2	..	..	..
	130	3423	707	23944	15376½	28	681	7907·5	423	152	108	3166	1922	1244	1225	1221	640	18	58	4	8	7

[a] From rheumatism. [b] Both cases of natural distortion. [c] Finger caught in the wheels. [d] Lost the end of third finger.
[e] 1 small-pox, 1 inkneed, 1 natural. [f] Jawbone broken by a shaft. [g] Arm injured. [h] Lost a finger.

No. III.—*Number and Health of Spinners and Piecers compared, and Treatment of the Piecers.*

Firms.	Number and Health of Spinners.							Number and Health of Piecers.				Spinners' Treatment of Piecers.				
	Number of Spinners.	Total of Ages.	Years worked in Mills.	Days absent from Sickness in 1832.	Number who have Good Health.	Number who have Pretty Good Health	Number who have indifferent Health.	Total number Employed.	Total number who are Relatives of Spinner or Wife.	Number of Reports that Health is injured by working in Mills.	Number of Reports that Health is not injured by working in Mills.	Spinners that never punish Children.	Spinners that inflict like School Punishment.	Spinners that inflict more severe Punishment.	Statement that Punishment is more frequent at the end of Weeks and Days.	Statement that it is not so.
T. and R. Barnes .	43	1,384	997	211	36	5	2	257	28	11	30·2	5	35	3	5	38
Bazley and Son . .	52	1,537	1,005	660	45	6	1	212	16	12	38·2	11	41	..	..	13·39
Bellhouse and Sons .	29	1,005	709	135	18	11	..	95	18	2	25·2	29	..	..	1	28
Buckham and Co. .	8	261	184	90	7	1	..	32	2	..	6·2	3	5	..	..	8
Carruthers . . .	15	483	304	28½	6	5	4	50	12	9	4·2	15	..	..	6	6·3
Falkner and Owen .	26	859	624	262	20	6	..	117	16	1	24·1	14	12	..	..	26
Benjamin Gray . .	41	1,352	959	253	34	7	..	144	22	..	38·3	41	..	..	2	39
T. Houldsworth . .	105	3,547	2,538	592	87	12	6	445	70	32	73·	40	63	2	27	77·1
Kennedy and Co. .	11	330	225	7	9	1	1	33	5	2	9·	10	1	..	..	11
M'Connel and Co. .	129	4,133	2,878	1,794	101	26	2	470	53	37	61·	49	74	6	23	104·2
S. M. Moore . . .	24	813	552	317	19	5	..	91	24	1	22·1	24	..	..	..	24
A. and G. Murray .	121	3,888	2,645	471½	111	6	4	383	62	18	85·8	36	50	35	..	121
Nicholls	14	470	352	126	5	7	2	56	15	5	6·3	14	..	..	1	13
T. and R. Ogden .	95	3,214	2,301	864	38	39	18	363	56	22	54·9	76	18	..	23	67·5
Plant and Son . .	39	1,237	853	160½	20	18	1	162	29	9	26·4	39	..	..	8	31
B. Sandford . . .	40	1,317	905	221	37	1	2	170	31	13	24·3	13	27	..	..	40
W. Shaw. . . .	18	652	453	67	17	1	..	86	12	..	18	5	13	..	..	18
Taylor and Shatwell.	9	301	225	35	6	3	..	27	5	..	8·1	7	2	..	..	9
J. and L. Williams .	18	584	424	2	5	11	2	40	12	6	7	18	..	..	1	17
	837	27,367	19,133	6,296½	621	171	45	3,233	488	180	552·3	439	341	46	97	690·50